

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. *(Previously Presented)* A method of evaluating the quality of a radio link in a mobile radiocommunication system, said method comprises:

determining a net bit rate transmitted on said link; and

evaluating said quality in accordance with the determined net bit rate.

2. *(Original)* The method claimed in claim 1 wherein data transmitted on said link is obtained by coding blocks of information bits and said net bit rate is obtained by calculation using the equation:

$$R_{net} = \frac{1}{T} \sum_{i=0}^{NB\_RECEIVED-1} N_i$$

in which NB\_RECEIVED is the number of blocks received correctly during a given period T and  $N_i$  is the number of information bits in the i-th block received correctly.

3. *(Currently Amended)* The method claimed in claim 1 wherein said quality is evaluated on the basis of a the relative net bit rate, which is defined as the ratio between said net bit rate and a the gross bit rate.

4. *(Original)* The method claimed in claim 3 wherein said ratio between said net bit rate and said gross bit rate is obtained by calculation using the equation:

$$\frac{R_{net}}{R_0} = \frac{\sum_{i=0}^{NB\_RECEIVED-1} N_i}{\sum_{i=0}^{NB\_SENT-1} N_i^{(c)}}$$

in which NB\_SENT is the number of blocks transmitted during a given period, NB\_RECEIVED is the number of corresponding blocks received correctly,  $N_i^{(c)}$  is the number of bits of the i-th block transmitted, and  $N_i$  is the number of information bits in the i-th block received correctly.

5. *(Original)* The method claimed in claim 3 wherein the number of bits of the blocks transmitted is a function of the modulation scheme used and said gross bit rate is determined for a given modulation scheme corresponding to a reference modulation regardless of the modulation scheme used.

6. *(Original)* The method claimed in claim 5 wherein said ratio between said net bit rate and said gross bit rate is obtained by calculation using the equation:

$$\frac{R_{net}}{R_0} = \frac{\sum_{i=0}^{NB\_RECEIVED-1} N_i}{NB\_SENT * N^{(c)}}$$

in which NB\_SENT is the number of blocks transmitted during a given period, NB\_RECEIVED is the number of corresponding blocks received correctly,  $N^{(c)}$  is the number of bits in a block transmitted with a given modulation scheme corresponding to a reference modulation, and  $N_i$  is the number of information bits in the i-th block received correctly.

7. (*Original*) The method claimed in claim 5 wherein said reference modulation is a modulation of lower spectral efficiency.

8. (*Previously Presented*) The method claimed in claim 3 wherein the blocks transmitted, or radio blocks, can comprise one or more blocks, or data blocks, depending on the modulation scheme used, and the ratio between said net bit rate and said gross bit rate is obtained by calculation using the equation:

$$\frac{R_{net}}{R_0} = \frac{\sum_{i=0}^{NB\_RECEIVED-1} \frac{N_i}{n_i}}{\sum_{i=0}^{NB\_SENT-1} \frac{N_i^{(c)}}{n_i'}}$$

in which NB\_SENT is the number of data blocks transmitted during a given period, NB\_RECEIVED is the number of corresponding data blocks received correctly,  $N_i^{(c)}$  is the number of bits in the radio block including the i-th block of data transmitted,  $N_i$  is the number of information bits in the radio block including the i-th block of data received, and  $n_i$  (respectively  $n_i'$ ) is equal to the number of data blocks in the radio block containing the i-th block of data received (respectively transmitted).

9. *(Previously Presented)* The method claimed in claim 3 wherein said blocks transmitted, or radio blocks, can comprise one or more blocks, or data blocks, depending on the modulation scheme used, and the ratio between said net bit rate and said gross bit rate is obtained by calculation using the equation:

$$\frac{R_{net}}{R_0} = \frac{\sum_{i=0}^{NB\_RECEIVED-1} \frac{N_i}{n_i}}{\sum_{i=0}^{NB\_SENT-1} \frac{N^{(c)}}{n_i'}}$$

in which NB\_SENT is the number of data blocks transmitted during a given period, NB\_RECEIVED is the number of corresponding data blocks received correctly, N<sup>(c)</sup> is the number of bits in a radio block for a given modulation scheme corresponding to a reference modulation, N<sub>i</sub> is the number of information bits in the radio block including the i-th data block received, and n<sub>i</sub> (respectively n'<sub>i</sub>) is equal to the number of data blocks in the radio block containing the i-th data block received (respectively transmitted).

10. *(Previously Presented)* The method claimed in claim 3 wherein the blocks transmitted, or radio blocks, can comprise one or more blocks, or data blocks, depending on the modulation scheme used, and the ratio between said net bit rate and said gross bit rate is obtained by calculation using the equation:

$$\frac{R_{net}}{R_0} = \frac{\sum_{i=0}^{NB\_RECEIVED-1} \frac{\rho_i}{n_i}}{\sum_{i=0}^{NB\_SENT-1} \frac{1}{n_i'}}$$

in which NB\_SENT is the number of data blocks transmitted during a given period, NB\_RECEIVED is the number of corresponding data blocks received correctly,  $N^{(c)}$  is the number of bits in a radio block for a given modulation scheme corresponding to a reference modulation,  $N_i$  is the number of information bits in the radio block including the i-th data block received,  $n_i$  (respectively  $n_i'$ ) is equal to the number of data blocks in the radio block containing the i-th data block received (respectively transmitted), and  $\rho_i$  is equal to  $N_i/N^{(c)}$ .

11-13. (*Cancelled*).

14. (*Currently Amended*) A mobile radiocommunication network entity ~~for implementing the method claimed in claim 1~~, said network entity comprising:

a radio receiver that receives a radio link; and

a quality evaluator coupled to said radio receiver, wherein said quality evaluator determines a net bit rate transmitted on said link and evaluates for evaluating the quality of said a radio link from the determined net bit rate transmitted on said link.

15. (*Original*) The entity claimed in claim 14 wherein said link is an uplink.

16. (*Original*) The entity claimed in claim 14 wherein said link is a downlink.

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17. (*Currently Amended*) A mobile station ~~for implementing the method claimed in claim~~  
~~1~~, said station comprising:

a radio receiver that receives a radio link; and  
a quality evaluator coupled to said radio receiver, wherein said quality evaluator  
determines a net bit rate transmitted on said link and evaluates for evaluating the quality of said a  
radio link from the determined net bit rate ~~transmitted on said link~~.

18. (*Original*) The mobile station claimed in claim 17 wherein said link is a downlink.

19. (*Original*) The mobile station claimed in claim 17 wherein said link is an uplink.